TEUFELSTEIN (LUCIFER'S ROCK), ARCHEOASTRONOMICAL MONUMENT OF STYRIA.

A model of destruction, loss and condemnation by Christianization but also of unconscious conservation and rediscovery of a prehistoric, astronomical, and geographical landmark.

By Sepp Rothwangl

Abstract: The legendary "Teufelstein" (Lucifer's Rock) is a conspicuous rock in the Fischbacher Alps of Styria/Austria. It is an exemplary model of a multiple intersection of ancient timekeeping by a significant orientation of rock formation with myth, survey of landscape, petroglyphs, and local tradition. An interdisciplinary conference and precise investigations proof the astronomical orientation of Teufelstein's great plain wall. It could have served as a warning peg for the summer solstice setting point, or for the winter solstice rising, which would go conform to the myth of Teufelstein. It tells of Lucifer, who failed to construct a tower up to the sky at Christmas night. Together with some ancient churches, and other ancient monuments Teufelstein forms a design of Pythagorean triangles that seem to be not of random origin. Several statisticians say that a coincidence can be excluded as reason of this design. A recent investigation of petroglyphs showing a Pythagorean triangular design discovered on the plateau of Teufelstein shows a parallel of its function as solstice marker and bears a striking similarity to the geographical structure of churches and monuments around Teufelstein.

Keywords: archeoastronomy, surveigh of landscape, landscape astronomy, myth, petroglyph, Pythagorean triangular design, global positioning

1 The characteristic and orientation of Teufelstein

Two walls of Teufelstein look not to be naturally broken but artificially treated in a way to make a flat surface. Two geological expertise contradict each other whether the walls are cut (Haditsch 1978 and 1998) or of natural origin (Hermann 2000). The azimuth of the Greater Wall points approximately to the solstitial axis of winter sunrise and summer sunset, but most perfect to the major lunar standstill (Rothwangl 2009). Former statements attributing Teufelstein no astronomical significance (Haupt 1990) could be explained and disproved (Maitzen, Schlosser 2000, Rothwangl 2002).

Teufelstein: sea level 1498 m,

Coordinate: y -53.715.0 / x + 5.258.755.0 or 47°27' North/15°37,5' East

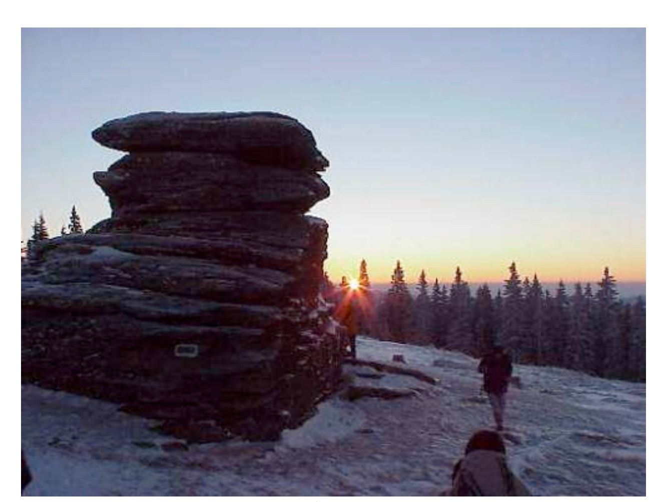


Figure 1: Sunrise at winter solstice

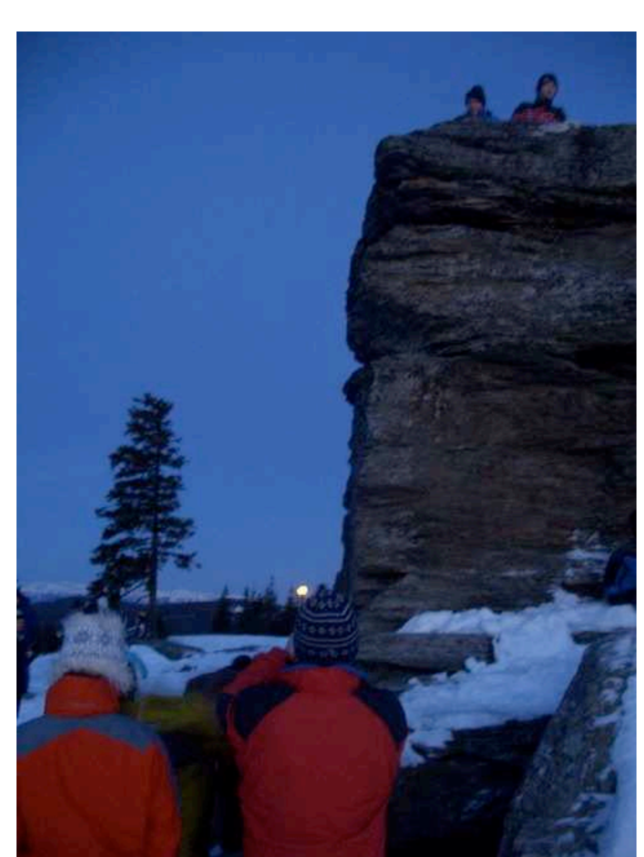


Figure 2: Setting of Full Moon at winter solstice

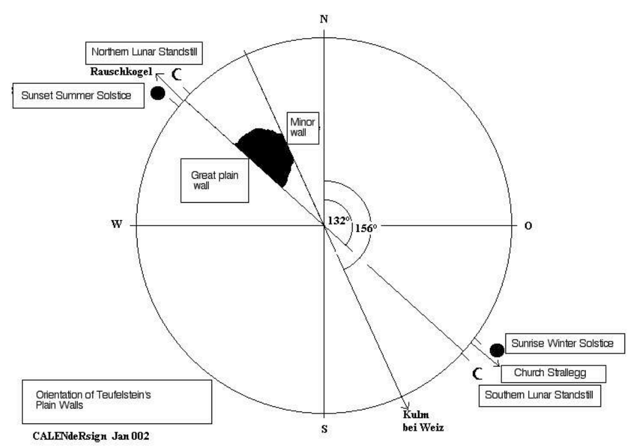


Figure 3: Azimuth of Teufelstein's plain walls

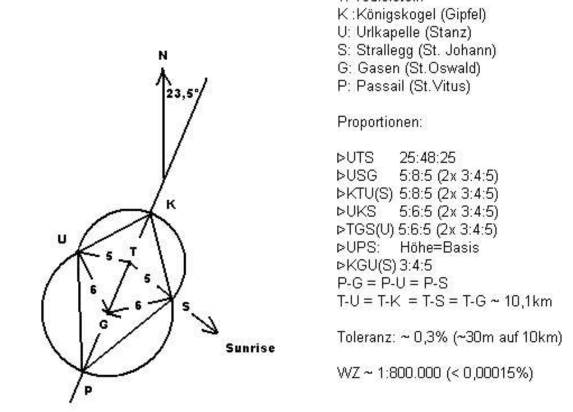


Figure 4: The churches around Teufelstein arranged in a geometrical design formed by Pythagorean triangles.

2 The Myth of Teufelstein

Astronomically interpreted the myth of Teufelstein goes perfectly conform with the celestial phenomena at winter solstice: *After paradise, in the morning of the holy night, Lucifer the devil wanted to build a tower that reached to heaven... but he failed, and the relic of this attempt is now Teufelstein*. The Styrian poet Peter Rossegger (born 1843, died 1918) told of this rock as a *ladder to heaven* (Rosegger 1902)

3 The Ancient Survey of Landscape

Teufelstein forms together with the locations of ancient churches and other ancient monuments a design of integer Pythagorean triangles (3:4:5) that seem not arranged in a haphazard way. Several statisticians say that randomness can be excluded as a reason of this design. The probability of being a random phenomenon is extremely small: $p < 0{,}00015\%$ (Bischoff, Gölles, Werneke 2000). There exist no evidence in Christian tradition that spatial planning of the locations of churches were chosen systematically in such a way, but we know that churches often were built at locations of previous cult places or pre-Christian monuments. Thus the conclusion lies close that the geometrical design origins from a pre-Christian culture and was preserved by erecting these churches on these very same ancient sites. In the case of Teufelstein itself the place probably was demonized, because people did not dismiss their pagan ceremonies. That such design is not unique shows the existence of similarity to alignments in other regions (Sahlqvist 2005, Ammann 2002, Büchi 2002). Particularly the geometrical kite around Teufelstein is conspicuous, because the axis of this deltoid formed by the monuments locations is tilted towards North by 23,5° like Earth's axis against the ecliptic.

Beside the geodetic arrangement of monuments around also the global positioning of Teufelstein at same latitude like the megalithic stone alignments of Carnac/Bretagne is worth to be considered. The latitude of about 47° is twice the obliquity of the ecliptic and thus a distinctive and prominent latitudinal position at Earth's surface as is the equator, the tropic of cancer, and 30° latitude of Gizeh and Persepolis (Schlosser 1996). More far to the South the entire Northern circle of precession meaning all Polar stars of 26 millennia cannot be observed. Thus South of 47° latitude Vega now would set and therefore at Teufelstein recently even Canopus of Southern celestial sphere can be observed.

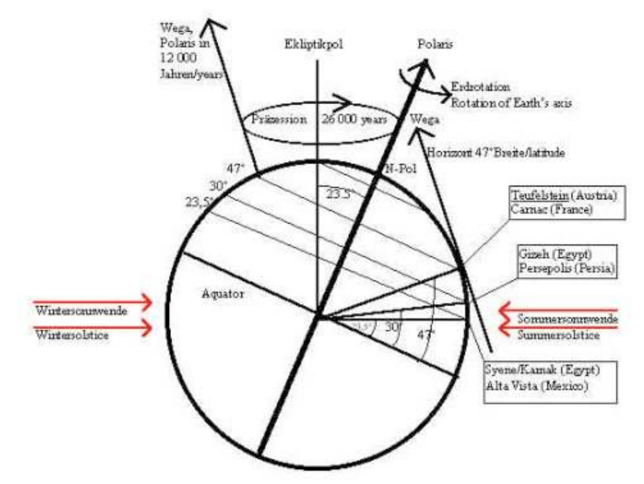


Figure 5: The global significance of 47°latitude

4 Petroglyph

My recent investigation of petroglyphs on the plateau of Teufelstein shows also a Pythagorean triangular design. These rock carving forms very precisely triangles with the sides 40 mm, 53 mm, and 67 mm (+/- 0.3 mm) giving the integer proportion 3:4:5. Unfortunately it was not possible yet to date the age.



Figure 6: Petroglyph at plateau of Teufelstein

5 Comparison of the petroglyph with the deltoid-like arranged Monuments, the Orientation of Teufelstein's Great Wall, Solstices and lunar Standstills

If we compare the petroglyph on top of Teufelstein with other environmental phenomena we find astonishing congruencies:

- The "hour-glass"-like carving (in red color of figure 7) corresponds closely to the directions of the solstices an equinoxes at Teufelstein and therefore also to Teufelstein's Great Wall
- The petroglyph bears a striking similarity to the geographical structure of churches and monuments around Teufelstein. One axis of the "hour-glass" corresponds closely to the line T-S (Teufelstein – Church of St. John in Strallegg) of the deltoid-like arranged monuments around Teufelstein (see Figure 8)

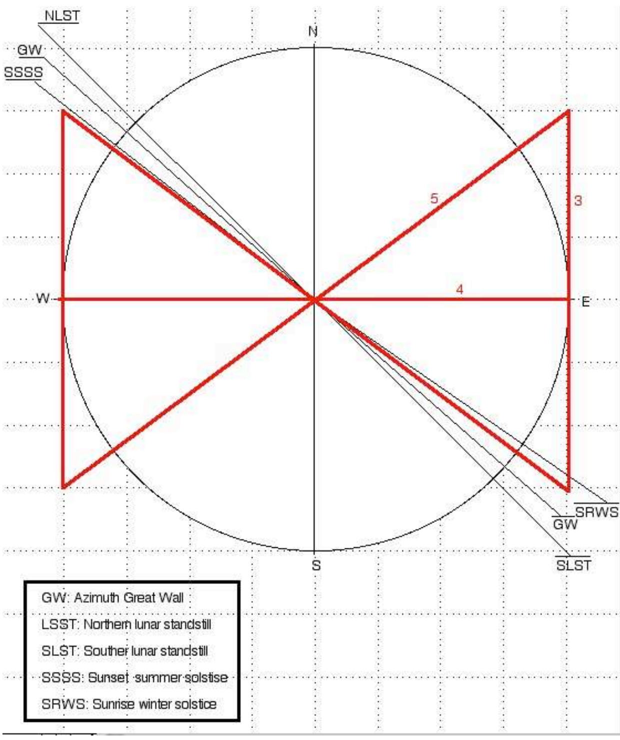


Figure 7: Graphic of lineup of petroglyph with azimuths

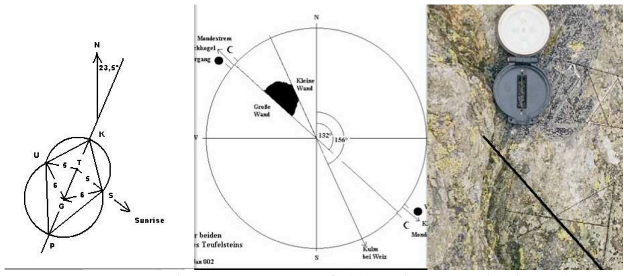


Figure 8: Azimuth comparison of deltoid, petroglyph and great wall

6 Tradition and Cult

There exist strong evidence that Teufelstein since many years was used for ceremonial gatherings. Styrian poet Peter Rosegger reported that at least until 1890 at the day of St. Laurentius, on 10th of August every year "Teufelsteinkirtag" was celebrated with a Holy Mess. This day marked the end of the old traditional farmer's summer, which started at 4th of May exactly 14 weeks before. Precisely in the middle and 7 weeks apart of both days is the day of summer solstice. A map of 1792 shows "Teufelswand" near Fischbach confirming that this rock was a significant place in former times.

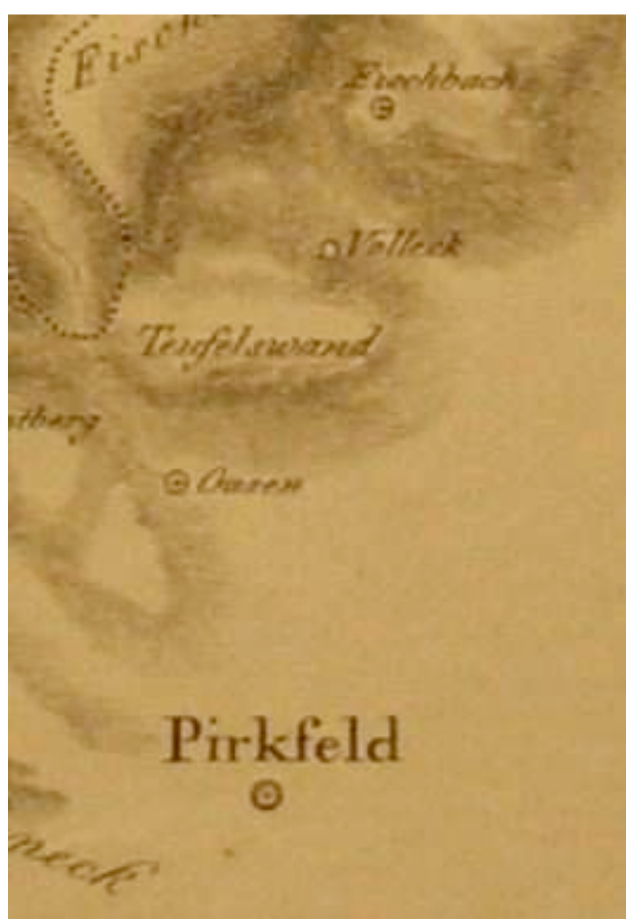


Figure 9: Map of Styria with Teufelswand. Atlas of 1792

Even today people remember this place and at morning of winter solstice up to 1000 persons gather every year to watch sunrise.
http://www.youtube.com/watch?v=YzzOUC1YgVU&feature=youtu.be



Figure 10: Gathering of people watching sunrise at winter solstice

7 Conclusions

The function of Teufelstein's plain wall is mirrored in its myth. The geodetical design with other monuments looks like a significant manifestation of astronomical and global facts. The petroglyph at top of Teufelstein could have functioned as a symbolic manual marking the cardinal horizontal positions of the sun, similar to the golden arcs of the Nebra Sky Disc indicating the angle between the horizontal positions of sunrise and sunset at solstices.

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